

IN THE CLAIMS

Please amend the claims as follows:

1 1. (Canceled)

1 2. (Canceled)

1 3. (Canceled)

1 4. (Canceled)

1 5. (Canceled)

1 6. (Canceled)

1 7. (Canceled)

1 8. (Canceled)

1 9. (Canceled)

1 10. (Canceled)

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1 11. (Canceled)

1 12. (Canceled)

1 13. (Canceled)

1 14. (Canceled)

1 15. (Canceled)

1 16. (Previously Presented) A method for monitoring the film build
2 thickness of workpieces on which a first film build process has been performed,
3 comprising the steps of:

4 calculating a first C_{pk} of workpieces on which a first film build
5 process has been performed;

6 acquiring data relating to parameters of a second film build
7 process in which at least one of the parameters of the first film build process has
8 been changed;

9 calculating a second C_{pk} of the second film build process
10 from said acquired data; and

11 calculating the difference between the first C_{pk} and the
12 second C_{pk} to ascertain the relationship between said difference and the
13 changed parameter.

1 18. (Previously Presented) A method as defined in claim 16, including
2 the step of calculating the C_{pk} of at least one of said film build processes from
3 range values of the film build thickness of the corresponding film build process.

1 20. (Previously Presented) A method as defined in claim 16, including
2 the step of acquiring target range values relating to said first film build process
3 and target range values relating to said second film build process; and

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4 generating a cost difference between the first film build
5 process and the second film build process utilizing the first C_{pk} and the second
6 C_{pk} .

1 21. (Previously Presented) A method as defined in claim 16, including
2 the step of acquiring data of the cost difference between the first and the second
3 film build processes in which both of said film build processes have the same film
4 thickness averages but with a different C_{pk} for the first and the second film build
5 processes.

1 22. (Previously Presented) A method as defined in claim 16, including
2 the step of acquiring data of the first film build process including Coating
3 Minimum Specifications, Actual Film Thickness Average, Actual Film Thickness
4 Range, the C_{pk} of the first film process, and a subgroup size.

1 23. (Previously Presented) A method as defined in claim 16, including
2 the step of acquiring data regarding film build usage, of the first film build process
3 and film build usage data of the second film build process, and in which the
4 changed parameter is the film build material usage of said first film process, and
5 then calculating the difference in film build material usage from the difference in
6 the first C_{pk} value and the second C_{pk} value.

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1 24. (Previously Presented) A method as defined in claim 16, in which
2 the changed parameter is the process control limits of the second film_build
3 process and then calculating the change in film build material usage from the
4 difference in the first C_{pk} value and the second C_{pk} value.

1 25. (Previously Presented) A method as defined in claim 22, including
2 the step of selecting target range values for the first film process and the second
3 film process, and then calculating the differences in the film build material usage
4 from the difference between the first C_{pk} value and the second value C_{pk} .

1 26. (Previously Presented) A method as defined in claim 16, including
2 the step of acquiring data of the film build material usage of the first film build
3 process, then selecting coating millages for at least one of said film build
4 processes, and then calculating the change in film build material usage from the
5 difference between said first C_{pk} value and the second C_{pk} value.

1 27. (Previously Presented) A method as defined in claim 16, including
2 the step of acquiring data regarding the material usage values of the first film
3 build process and the film usage of the second film build process based on using
4 the same film thickness with different variability for the first and the second film
5 build processes and then calculating the change in film build usage from the
6 difference between said first C_{pk} value and the second C_{pk} value.

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1 28. (Previously Presented) A method as defined in claim 16, including
2 the step of calculating the optimal variability of the first film build process by
3 adjusting the film millage average thereof, using said first C_{pk} , and in which
4 optimal variability is defined as the lowest standard deviation in a run of seven or
5 more units in the film build process.

1 29. (Previously Presented) A method as defined in claim 16, including
2 the step of calculating the optimal variability of said first film build process by
3 adjusting the film millage costs thereof utilizing said first C_{pk} and in which optimal
4 variability is defined as the lowest standard deviation in a run of seven or more
5 units in the build process.

1 30. (Previously Presented) A method as defined in claim 16, including
2 the step of adjusting the variability of the first film build process to optimize the
3 film millage average.

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6 means for acquiring data relating to parameters of a second
7 film build process in which at least one of the parameters thereof has been
8 changed;
9 computer-implemented means for calculating a second C_{pk}
10 of the second film build process; and
11 computer-implemented means for calculating the difference
12 between the first C_{pk} and the second C_{pk} to develop a relationship between said
13 difference and the changed parameter.